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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,142	10/21/2003	L. Murray Dallas	15912/09034	6042

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EXAMINER
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BOCHNA, DAVID

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/690,142

Applicant(s)

DALLAS, L. MURRAY

Examiner

David E. Bochna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 and 28-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 28-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 28 and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Abbes et al.

In regard to claims 1 and 28, Abbes et al. discloses a threaded union comprising:

First 1 and second 2 subcomponents that are inter-connected by a nut 40, the first and second subcomponents having respective mating ends that are forced together and abut when securely interconnected by the nut, the first and second subcomponent having complementary ring gasket grooves therein;

And

A metal ring gasket 6 received in the complementary ring gasket grooves, the metal ring gasket providing a high-pressure seal between the mating ends of the first and second subcomponents when securely interconnected by the nut.

In regard to claims 3 and 30-31, the nut is a spanner nut.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-7, 10, 12-14, 28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Putsch et al. in view of Laird.

In regard to claims 1, 4 and 28, Putsch et al. discloses a threaded union, comprising:

first 14 and second 18 subcomponents are inter-connected by, the first and second subcomponents having respective mating ends that are forced together and abut when securely interconnected, the first and second subcomponent having complementary ring gasket grooves therein; and

a metal ring gasket (ring just above the numeral 74 in fig. 1A) received the complementary ring gasket grooves, the metal ring gasket providing a high-pressure seal between the mating ends of the first and second subcomponents when securely interconnected. However, Putsch et al. discloses that the first and second components are securely connected by bolts and not a nut. Laird teaches that connecting two components by either bolts 24 or a nut 30 are equivalents in the art. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the bolts of Putsch et al. to include a nut, as taught by Laird.

In regard to claims 3, 12 and 30-31, the nut 30 is a spanner nut that is torqued using a wrench.

In regard to claim 5, wherein the metal ring gasket (ring just above numeral 74) is compressed between the mating ends of the first 14 and second 18 subcomponents.

In regard to claim 6, wherein the metal ring gasket is seated in an annular groove in the mating end of the first subcomponent 14.

In regard to claim 7, wherein the annular groove has beveled sides.

In regard to claim 10, wherein the second subcomponent 18 has a beveled annular groove having a bevel angle equal to an upper bevel angle of the metal ring gasket.

In regard to claim 13, the first subcomponent 14 is a wellhead and the second subcomponent is a drilling flange 18.

In regard to claim 14, the first subcomponent is a wellhead and the second subcomponent is a casing mandrel.

In regard to claim 29, wherein the step of securing the second subcomponent the first subcomponent tightening the threaded nut comprises hammering lugs 30 on the threaded nut.

5. Claims 2, 11 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Putch et al. in view of Laird and further in view of Parmesan. Putch et al. in view of Laird discloses a coupling as described above, but does not disclose that the nut is a wing nut, which is torqued to a predetermined torque by a hammer. Parmesan teaches that hammer nuts and spanner nuts, which are torqued by a wrench are equivalents in the art. Therefore it would have been obvious to a person having ordinary skill in the art at the time the invention was made to make the spanner nut of Laird a hammer nut because hammer nuts and spanner nuts are well known equivalents in the art, as demonstrated by Parmesan.

6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Putch et al. in view of Laird. Putch et al. in view of Laird discloses a beveled annular groove as described above, but does not disclose the exact angle of the bevel. However, it would have been obvious to make the bevels of the groove 23 degrees from the vertical, plus or minus 1 degree because a

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change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

7. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Volpin. Volpin discloses the use of a ring gasket as described above, but does not specifically disclose what type of material the gasket is made from. However it would have been obvious to make the gasket out of the materials recited by the Applicant because the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

*Response to Arguments*

8. Applicant's arguments filed 6/22/05 have been fully considered but they are not persuasive. Applicant argues that Putch et al. discloses a BX ring that requires sequential bolt tightening in order to achieve adequate compressive force to compress the BX ring into the gasket grooves and that it would not have been obvious to use a threaded nut in place of the bolts, as taught by Laird, because the threaded nut would not provide adequate torque to create a high pressure seal.

Putch et al. does not describe the gasket as being a BX ring and does not disclose that the ring has to be tightened in a sequential order in order to create an effective seal. However, Putch et al. does disclose that the joint is designed to contain higher temperature and high pressure gasses and liquids.

Laird also discloses a joint with a metallic gasket 10 that is particularly adaptable for use in handling high pressures and/or temperatures (see page 1, lines 1-6). Laird discloses that both bolted flanges or a threaded nut can be used to create the disclosed seal (see fig. 1 and fig. 4).

Therefore it would have been obvious to one of ordinary skill in the art to substitute the bolted flanges of Putch et al. with a nut, because they are well known equivalents in the art.

Applicant argues that Putch et al. does not disclose a "a pressure energized seal", however this limitation is not present in the claims.

Applicant points to page 2, lines 80-88 of Laird to support the argument that union disclosed by Laird is for handling low pressures. However, the page 1, lines 1-6 state that the joint is designed to handle high pressures and temperatures.

Applicant argues that a high pressure steam system would not equate to high pressure in a oil drilling system. However, these are intended use limitations which carry little patentable weight, as the applied prior art contains the claimed structural limitations.

The nut could be threaded onto the joint of Putch et al. by placing threads on the circumferential surface of component 14 above the screws 88 and passing the nut over the exterior surface of body 18 until threads on the end of the nut engage the threads on 14.

For the reasons stated above, the rejections of claims 2, 11, 15-19 and 29 have been maintained.

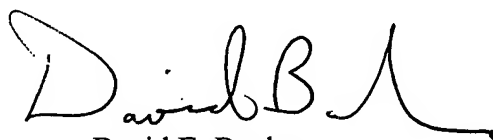
### *Conclusion*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Bochna whose telephone number is (571) 272-7078. The examiner can normally be reached on 8-5:30 Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "David E. Bochna". The signature is fluid and cursive, with a long horizontal stroke at the end.

David E. Bochna  
Primary Examiner  
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